

REMARKS

In response to the Office Action mailed October 31, 2008, Applicant respectfully requests reconsideration. Applicant cancels claims 4 and 7-10 without prejudice, amends claims 1, 5, and 6, and adds new claims 11-17. As a result, claims 1-3, 5, 6, and 11-17 are pending for examination with claim 1 being independent. No new matter is added.

Claim Rejections under 35 U.S.C. §102 are Overcome

Claims 1-3, 5, and 6 stand rejected under U.S.C. §102(b) as being anticipated by U.S. 6,767,190 (Cabuz). Applicant amends claim 1 to overcome these rejections.

Cabuz relates to an electrostatically actuated pump. The pump, as shown in Fig. 1, receives fluid through an inlet port 42 when a diaphragm 20 having an electrode 22 moves away from a first wall 14 and toward an electrode 30 on a second wall 16. The fluid is expelled from the pumping chamber through an outlet port 44, and the diaphragm 20 returns to its original position. (See generally column 3, line 49 to column 4, line 9). The inlet port 42 and the outlet port 44 do not, however, introduce fluid between the electrode 22 of the diaphragm 20 and the electrode 30 of the second wall 16. Fluid that lies in the space between electrodes 22 and 30 may be moved through a back pressure conduit 40, but in each embodiment of Cabuz, there is only one conduit or opening in fluid communication with the space between the electrode 22 / diaphragm 20 and the electrode 30 on the second wall 16. In fact Cabuz teaches that, among other drawbacks, passing fluid between electrodes reduces the efficiency and/or reliability of a pump. (See generally column 1, lines 29-42).

As amended, claim 1 recites an integrated circuit chip that includes a pump. The integrated circuit chip has, among other features, a pumping volume defined between a conductive layer and a flexible membrane. A first opening provides fluid communication to the pumping volume through the conductive layer and a second opening, positioned near a border of the cavity, provides fluid communication to the pumping volume. To the contrary, in Cabuz there is only one opening (the back pressure conduit 40) in fluid communication with the pumping chamber between the diaphragm 20 and the electrode 30 of the second wall 16.

For at least this reason, the rejection of independent claim 1, and claims 2-3, 5, and 6 depending therefrom are believed to be overcome. Accordingly, withdrawal of these rejections is respectfully requested.

Claims 11-17 Are Added

Claims 11-17, depending either directly or indirectly from claim 1, are added by this response. Each of claims 11-17 are believed to be patentable for at least the same reasons discussed above with respect to claim 1.


CONCLUSION

In view of the foregoing, the present application is believed to be in condition for allowance. A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, the Director is hereby authorized to charge any deficiency or credit any overpayment in the fees filed, asserted to be filed or which should have been filed herewith to our Deposit Account No. 23/2825.

Dated: 2/2/09

Respectfully submitted,

By 
Walton A. Norfleet
Registration No.: 52,078
WOLF, GREENFIELD & SACKS, P.C.
Federal Reserve Plaza
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
617.646.8000